

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: C. EVANS *et al.*

Attorney Docket No: 5231-096-US01

Application No.: 10/673,140

Group Art Unit: 2164

Filed: November 30, 2003

Examiner: R. Mahmood

For: SQL Join Elimination

**APPLICANT'S REMARKS IN SUPPORT OF
PRE-APPEAL BRIEF REQUEST FOR REVIEW**

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Sir:

In response to the Final Office Action mailed June 24, 2009, Applicants respectfully request review of the rejection of claim 1 under 35 U.S.C. § 101 and claims 1-9 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,640,221 to Levine ("Levine").

As discussed in greater detail below, claim 1 satisfies the statutory requirements under § 101 and Levine fails to teach each and every feature of the present invention recited by claims 1-9.

The Rejection of Claim 1 Under 35 U.S.C. § 101

The Examiner contends that claim 1 is improper because it is not tied to a particular machine. This assertion is maintained, despite the fact that claim 1 specifically recites a "computer implemented method." Applicants' Response to Office Action filed February 19, 2009 at Page 2 and 4. Although the Examiner states that this is merely a "nominal recitation," viewing the claim in its entirety rebuts this argument. In other words, the elements of claim 1 recite a database, SQL statements, and joins, all of which are related to computers – which of course are machines.

Accordingly, the recitation of "computer implemented" viewed in the context of the claim, satisfies the requirements of § 101. As such, Applicants respectfully request withdrawal of the rejection of claim 1.

The Rejections Under 35 U.S.C. § 102

In order to anticipate a claim, a reference must teach each and every feature recited by the claims. MPEP § 2131. Levine fails in this regard for at least the following reasons.

Levine discloses that SQL statements that include more than one join operation have two types of result sets: (i) a final result set; and (ii) an intermediate result set. Applicants' Response to Office Action filed December 27, 2007 at Pages 4-5 and Applicants' Response to Office Action filed July 14, 2008 at Pages 5-7. The intermediate result set is the intermediate table that is generated from just two of the tables (or one table and another intermediate result set) being joined in one of the join operations. *Id.* The final result set is the final table that is generated from the tables being joined after all the join operations are executed. *Id.* Levine attempts to manipulate the intermediate result sets by providing a system and method for configuring, sequencing, and viewing joins in a SQL query. *Id.*

The process can be summarized as follows. First, Levine provides a join object for each table. *Id.* The join object includes a table relationships table that lists related tables. *Id.* A first "raw" list of tables in an SQL query is then provided. *Id.* A first table from the first list is then moved into a second "ordered" list, and the table is deleted from the first list. *Id.* If the first table (which is now in the second list) has a related table in the table relationships list, the related table is also moved from the first list to the second list, and the related table is deleted from the first list. *Id.* at Pages 4-5. This process is repeated until there are no tables remaining in the list. *Id.* In sum, the process disclosed by Levine uses no discretion. *Id.* Rather, it removes tables from the first list until no tables remain. *Id.* In other words, Levine merely discloses reordering lists. *Id.*

An example is helpful to clarify this matter. Consider the "raw" table and "related table" below. Applicants' Response to Office Action filed July 14, 2008 at Pages 5-7.

| Raw Table |
|-----------|
| A |
| B |
| A1 |

| Related Tables | |
|----------------|----|
| A | A1 |

In this example, tables A and A1 are related. Thus, according to the description of Levine above, the tables will be reordered. *Id.* First, table A will be moved to the “ordered” list and deleted from the “raw” list. *Id.* Then, the “Related Tables” list will be referenced to determine if any tables are related. *Id.* In this example, tables A and A1 are related. *Id.* Thus, table A1 will be moved from the “raw” table to the “ordered” table, and deleted from the “raw” table. *Id.* Because there are no more tables related to table A, table B will be moved to the “ordered” list. *Id.* Since table B does not have any related tables, the process described by Levine ends. *Id.* The final “ordered” table is shown below. *Id.*

| Ordered Table |
|---------------|
| A |
| A1 |
| B |

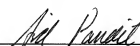
The example shown above clarifies the operation discussed by Levine. *Id.* However, those skilled in the art will note that the related table serves merely as a reference table. *Id.* That is, it is not changed, *i.e.*, it still lists tables A and A1 as being related. *Id.* Indeed, Levine does not teach or suggest deleting any tables from the reference table. *Id.* Instead, tables are deleted from the “raw” table and moved to the “ordered” list. *Id.* Further, it is clear that the tables listed in the “Related Tables,” *i.e.*, table A and A1, are still joined in the “ordered” list. *Id.*

Independent claim 1 of the present application contrasts with Levine because it recites that one aspect of the present invention prevents “execution of joins involving any of the tables remaining in the list.” Applicants’ Response to Office Action filed February 19, 2009 at Page 5. As support for the rejection of the claims based on Levine, the Examiner makes blanket citations of large portions of Levine. *Id.* Additionally, the Examiner states that “since the tables required by the SQL statement are selected from the original list, the rest of the tables in the list do not participate in the SQL statement and are prevented from participating in the execution of joins.” *Id.* The Examiner’s contention, however, is explicitly rejected by the disclosure of Levine. Specifically, Levine states that the reordering of tables from the “raw” list to the “ordered” list (septs 162-172) is “repeated until all of the join objects have been moved from the ‘raw’ list to the ‘ordered’ list...” *Id.*

The direct, explicit, and unambiguous teaching of Levine directly contradict the basis for the Examiner's rejection of the claims of the present application. Thus, Levine fails to teach each and every feature of the present invention as recited by the claims. As such, Levine does not anticipate the present invention, and the rejection based thereon must be withdrawn. Accordingly, Applicants respectfully request issuance of a Notice of Allowance.

Respectfully submitted,
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